

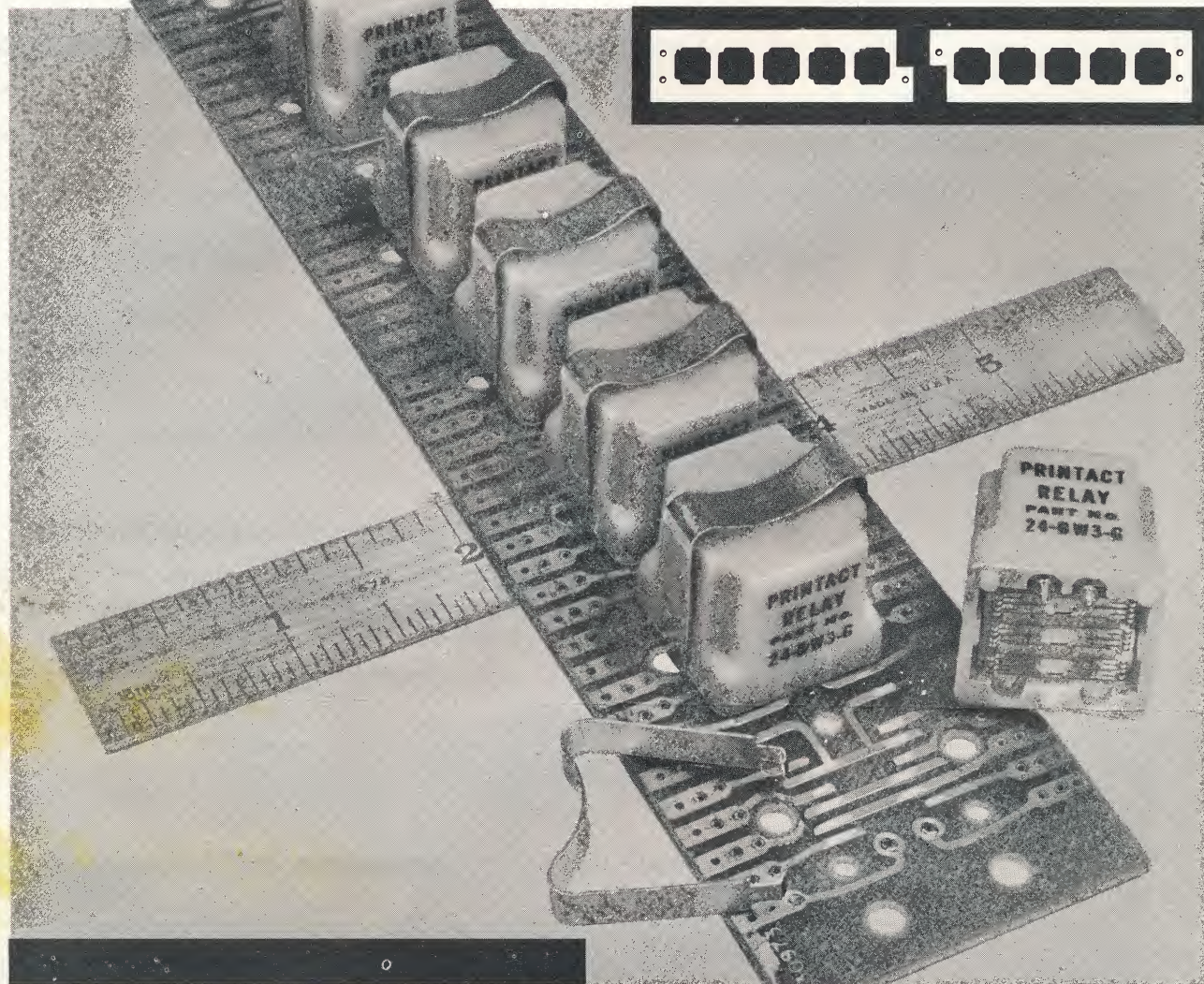
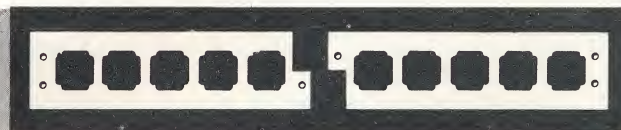
General Purpose Printed Circuit Boards for Up to 10

Part A-30973 for up to 10 single coil relays to switch 3 Form A, B or C as shown, \$5.00 each.

Part A-31412 for up to 10 double coil relays for Form A and B in separate circuits, \$7.00 each.

Printact Relays

This 1-13/16" wide x 11-11/16" long x 1/16" thick G10 glass epoxy board, can be cut apart as required to accommodate fewer relays. A pair of .169" mounting holes are located at both ends and in center of this uncut board. Connector terminations along both sides of the board can be interconnected to provide up to 3 Form A, B or C switching or any combinations. In stock for immediate delivery. Priced at \$5.00 each.



FOR SPECIAL PC BOARDS to accommodate Printact relays and other components, we will gladly provide SD 12433 Board Preparation Prints including plating specifications and conductor patterns. We can also assist you on board layout and procurement through approved Printact PC board sources.

Printact RELAY DIVISION, EXECUTONE, INC.

47-37 Austell Place, Long Island City, New York 11101
212 EX 2-4800

Form 965 B

Printed in U.S.A.

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Save Space,
Money and Manhours
with the New

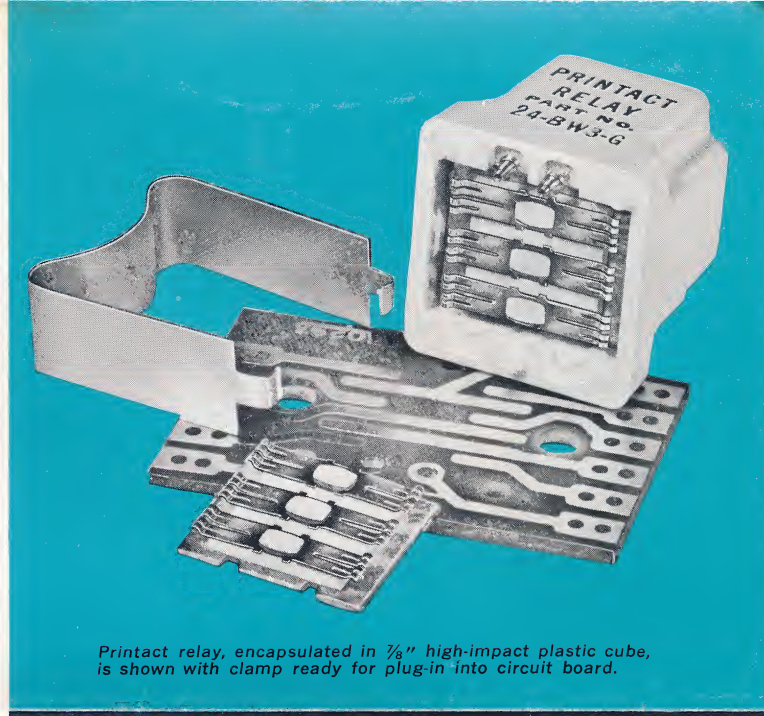
Printact®

Series G Plug-In
PRINTED CIRCUIT RELAY*

PLATED CONDUCTORS
ON YOUR PRINTED CIRCUIT BOARD
ARE THE FIXED CONTACTS

The highly reliable Printact Relay, which mounts on and becomes an integral part of your printed circuit board, makes possible substantial savings in space, weight and assembly costs. Mechanical linkage and fixed contacts on the relay are eliminated entirely. The moving contacts which are part of the armature assembly, mate with rhodium over nickel plated copper conductors printed on your circuit board. Spring connectors on the coil leads eliminate soldering.

Fully encapsulated in a 7/8" high-impact plastic cube, the Executone relay employs a permanent magnet in place of a return spring to hold the armature open. The magnetic force remains constant eliminating the need for maintenance adjustment. Recommended configurations for your circuit layout, provide for switching up to three form A *and* B or form C, or up to five pole to a common line.



*Patent Nos.: Re 24,209 and 2,881,365

Coil resistance of the standard 6, 12, and 24 volt D.C. relays are 75, 300, and 1200 ohms (500 milliwatts) with pull-in occurring at 80% of rated voltage. Variations of coil resistance are available on special order.

Operating life exceeds 10,000,000 operations when contact load is from dry circuit up to 1/4 amps 24 volts D.C. See Table I for minimum life ratings up to 3 amps.

Contact Material..... Gold alloy or Palladium

Power Consumption..... 500 mw (at rated voltage)

Operating Temperature..... -30°C to + 95°C
at rated voltage

Operate Time 3 to 7 ms. See Table II

Dimensions and Weight... 7/8 x 7/8 x 13/16—0.8 oz.

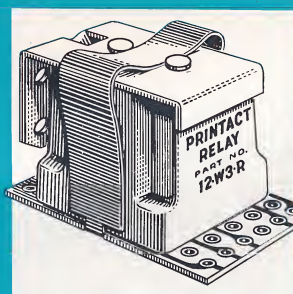
Dielectric Test 1000 volts RMS 60 cps.

Other Printact features include Bifurcated contacts; Double-break contacts; Balanced armature; Enclosed housing; Plug-in application; Encapsulated coil; Self-wiping contacts; Inherent snap-action, greater switching versatility.

STANDARD 'G' SERIES CATALOGUE NUMBERS

	Double Pole	Three Pole
6 Volt	6-BP2-G	6-BP3-G
12 Volt	12-BP2-G	12-BP3-G
24 Volt	24-BP2-G	24-BP3-G

Contact Material Code: BW = Bifurcated Gold alloy
BP = Bifurcated Palladium



SERIES 'GR' RELAY for conventional mounting

Similar to the "G" series, the "GR" relay has its own circuit board with wiring terminals, and a bracket for easy mounting. Ideal for bread board and prototype testing before you design your final circuit board.

Now Available:

**NEW Low-Cost Series LS and LD
MAGNETIC LATCHING RELAY**

Write for details.

Executone inc.

PRINTACT DIVISION

47-37 Austell Place, Long Island City 1, New York

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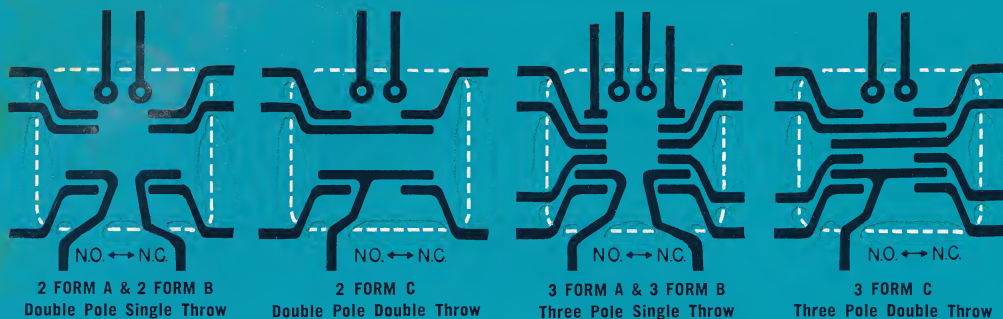
Printed in U. S. A.

Form PR-961D

CATALOG NUMBER CODE

24 BWP 3GLDSR

DC Voltage
Bifurcated
Gold-Alloy
Palladium
No. of Poles
Standard
Latching
Double Coil
Single Coil
PC Board



RECOMMENDED LAYOUTS FOR YOUR BOARD

Can be arranged in any combination for switching up to 3 Form A and 3 Form B or 3 Form C.

Up to five pole common (5A, B, or C to one common line) can be provided on special order.

Stick-on conductor patterns are available to assist you in laying out your board.

PRINTED CIRCUIT SPECIFICATIONS

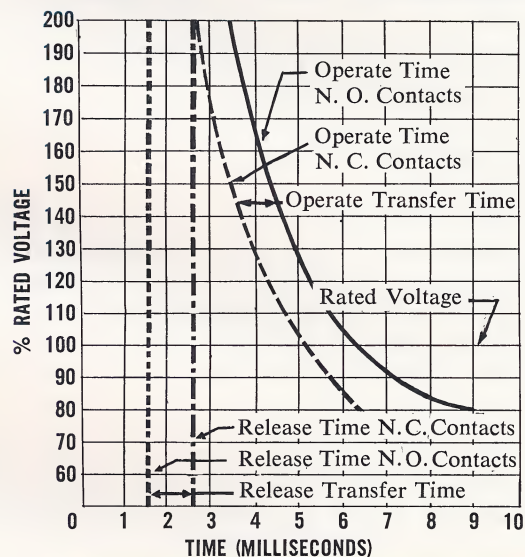
Preferred Base Material.....1/16 Glass Cloth Epoxy
or 3/32" XXXP
Conductors.....1 or 2 Ounce Copper
(.0014 or .0028" thick)
Plating.....20-50 microinches Rhodium
over 50 microinches Nickel
Plating can be confined to coil lead and contact areas.

TABLE I
LIFE RATINGS OF PRINTACT "G" AND "R" SERIES RELAYS

Contact Load	Gold Alloy	Palladium
24 V. DC Dry Circuit	10,000,000	10,000,000
24 V. DC 1/4 amp res.	5,000,000	5,000,000
24 V. DC 1/2 amp res.	1,000,000	3,000,000
24 V. DC 1 amp res.	200,000	2,000,000
24 V. DC 2 amp res.	not recom.	400,000
24 V. DC 3 amp res.	not recom.	300,000
110 V. AC 1/2 amp res.	100,000	500,000

Mechanical Life is estimated at 100,000,000 cycles. Depending upon the circuitry, contact protection, quality of the printed board, etc., actual performance may exceed rated minimums by 100% or more. For contact loads above 1 amp, 24 VDC and 1/2 amp, 110 VAC, plating of 40 microinches of rhodium over nickel and copper in the contact area of your board is recommended.

TABLE II
PRINTACT RELAY — AVERAGE TIME CHARACTERISTIC



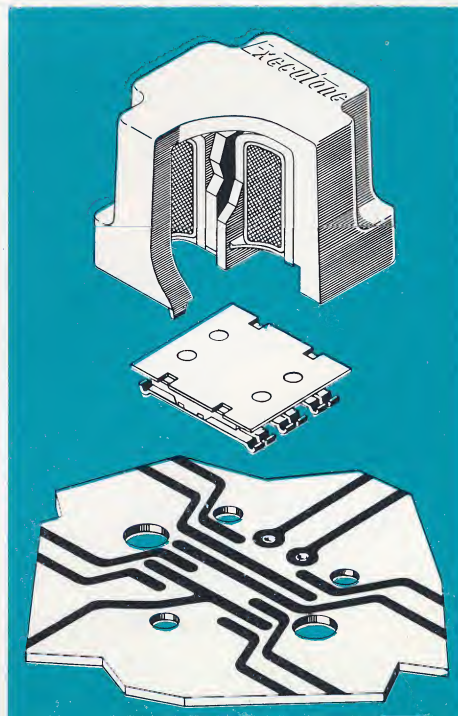
Plugs into your PC Board!

**NO Springs, NO Wiring,
NO Sockets, NO Soldering,
NO Mechanical Linkage**

NEW

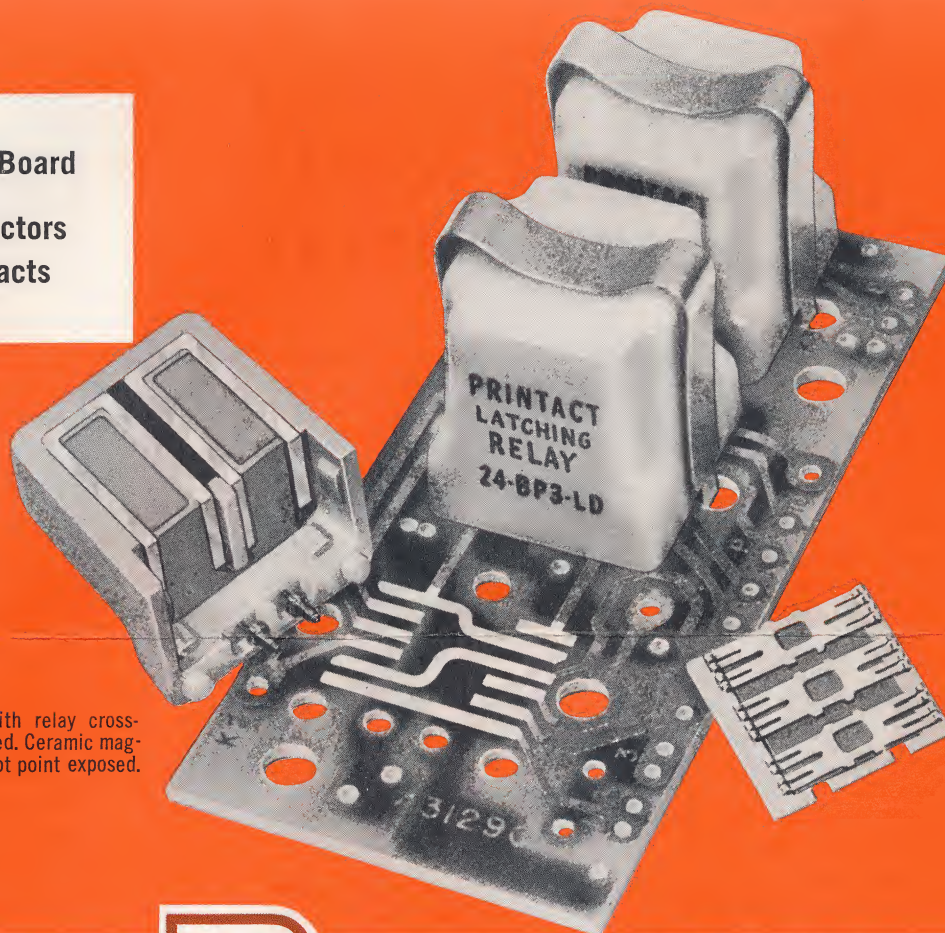
Printact

Permanent-magnet, Printed-contact Relay



Plugs into Your PC Board

Uses Plated Conductors
as the Fixed Contacts



Printact Latching Relay and board with relay cross-section shown; contact armature removed. Ceramic magnet is in center of sectioned piece; pivot point exposed.

**NEW low cost
series LS and LD**

Printact[®]

MAGNETIC LATCHING RELAY

NO Springs

NO Wiring

NO Sockets

NO Soldering

NO Mechanical Linkage

FEATURING:

**Bifurcated Contacts,
Balanced Armature,
Enclosed Housing,
Encapsulated Coil,
Plug-In Application,
Self-Wiping Contacts,
Inherent Snap Action,
Contact Arrangement Versatility**

The outstanding reliability of standard Printact Series G Relays is now available in the new Printact single and double coil Latching Relays. Employing ceramic magnets, instead of mechanical linkage, the new Printact LS and LD Series Latching Relays do not require "hold-in" power to remain in either latch position. Only a momentary DC pulse of 7 milliseconds at rated voltage is required to switch Printact Latching relays which are available with 6, 12, or 24 VDC coils.

Substantial savings in space, weight and assembly costs are possible with this new $\frac{7}{8}$ " cube, 0.8 oz., Printact Plug-In Relay which mounts on and becomes an integral part of your PC board. Palladium or gold alloy spring contacts mate with rhodium plated printed circuit wiring...eliminating costly sockets and coil lead soldering. The bifurcated contacts, rated to three amps resistive, wipe with every actuation...cleaning contact surfaces to provide

high reliability for your most critical circuit.

The Printact relay uses a ceramic magnet and balanced armature/pivot arrangement instead of a spring return. The magnetic force is constant...no need for maintenance adjustment.

Available conductor patterns for your circuit board layout provide up to 3 pole switching combinations of 3 Form A and 3 Form B or 3 Form C...or up to 5 poles to a common line...in any combination.

Single Coil Series LS (500Mw) Printact Relays. A DC pulse switches the relay which remains latched in this position until its coil is pulsed by a signal of opposite polarity.

Double Coil Series LD (1 watt) Printact Relays. One coil switches contacts to one latched position, the second switches to the other latched position. Double coil operation permits use of magnetically-biased adding and resetting circuits.

Printact

MAGNETIC LATCHING RELAY*

Mechanical Life: Exceeds 100,000,000 cycles. Loads up to ¼ amp resistive (24 vdc) conservatively rated at 5,000,000 operations... dry circuitry at over 10,000,000 cycles. Rated life at 1 amp, resistive, is 2,000,000 cycles; at 3 amps, 300,000 cycles. For 110 vac operation at ½ amp, relay life exceeds 500,000 cycles. (Table I)

Contact Material: Gold Alloy recommended for up to ½ amp; palladium for higher contact currents.

Board Plating: 20 microinches of rhodium over 50 microinches of nickel in the contact area only is recommended for up to and including 1 amp, 24 vdc switching.

Pull-In Time: 7 milliseconds at rated voltage; 4 milliseconds at twice rated voltage. (Table II)

Operating Temperature: -30°C to +95°C (at rated voltage)

Size and Weight: 7/8 x 7/8 x 13/16"; 0.8 oz.

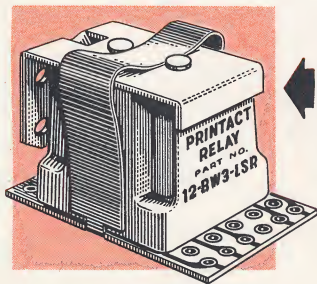
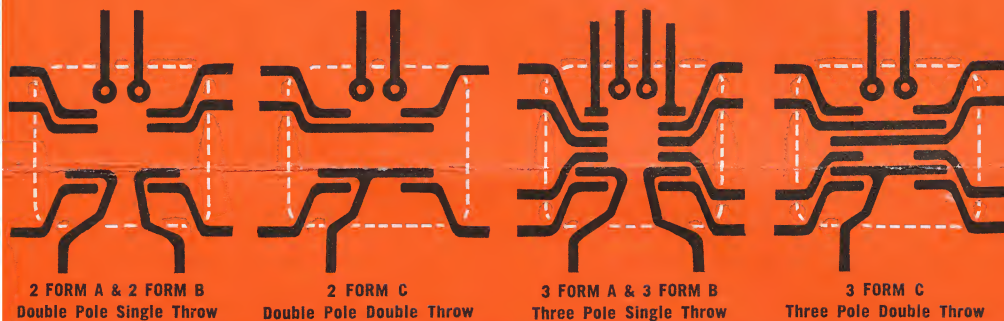
Coil Resistance, Series LS single coil (500 Mw): 75 ohms (6 vdc); 300 ohms (12 vdc); 1,200 ohms (24 vdc). **Series LD double coil (1 watt):** 35/35 ohms (6 vdc); 150/150 ohms (12 vdc); 550/550 ohms (24 vdc). Variations of coil resistance are available on special order.

ENGINEERING ASSISTANCE: Executone Design and Production Engineers are available to assist you in your evaluation of the Printact Relay and help you apply it to your printed circuit design. Write for sample relays as well as cost and delivery information.

RECOMMENDED LAYOUTS FOR YOUR BOARD

Can be arranged in any combination for switching up to 3 Form A and 3 Form B or 3 Form C. Up to five pole common (5A and 5B to one common line) can be provided on special order.

Stick-on conductor patterns are available to assist you in laying out your board.



For Conventional Mounting

The LSR and LDR series Magnetic Latching Relays are available with individual PC boards, wiring terminals and a bracket for easy mounting.

Standard 'G' Series

Printact Relays for 'continuous power' holding are also available.

Write for literature.

PRINTACT DIVISION **Executone inc.**

47-37 Austell Place, Long Island City 1, N. Y.

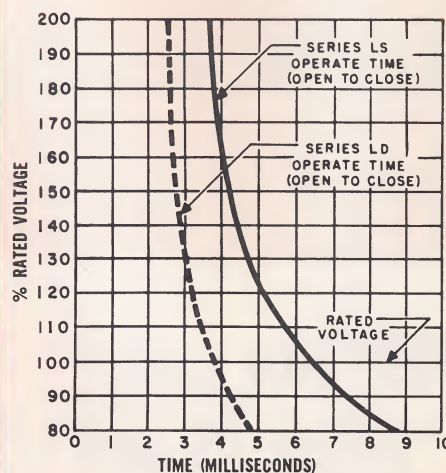
SPECIFICATIONS:

TABLE I — LIFE RATINGS

Contact Load	Gold Alloy	Palladium
24 V. DC Dry Circuit	10,000,000	10,000,000
24 V. DC ¼ amp res.	5,000,000	5,000,000
24 V. DC ½ amp res.	1,000,000	3,000,000
24 V. DC 1 amp res.	200,000	2,000,000
24 V. DC 2 amp res.	not recom.	400,000
24 V. DC 3 amp res.	not recom.	300,000
110 V. AC ½ amp res.	100,000	500,000

Mechanical life is 100,000,000 cycles. Depending upon the circuitry, contact protection, quality of the printed board, etc., actual performance may exceed rated minimums by 100% or more. For contact loads above 1 amp, 24 VDC and ½ amp, 110 VAC, plating of 40 microinches of rhodium over nickel and copper in the contact area of your board is recommended.

TABLE II — AVERAGE TIME CHARACTERISTIC



PRINTED CIRCUIT SPECIFICATIONS:

Preferred Base Material 1/16 Glass Cloth Epoxy or 3/32" XXXP
 Conductors 1 or 2 Ounce Copper (.0014 or .0028" thick)
 Plating 20-40 microinches Rhodium over 50 microinches Nickel
 Plating can be confined to coil lead and contact areas.

CATALOG NUMBERS

24-BW3-LD

12-BP2-LS

DC Voltage
Bifurcated
Gold-Alloy
No. of Poles
Latching
Double Coil

DC Voltage
Bifurcated
Palladium
No. of Poles
Latching
Single Coil

* Patent Nos.: RE 24,209 and 2,881,365 and other patents pending.

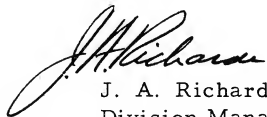
PRINTACT RELAY DIVISION
EXECUTONE, INC.
47-37 Austell Place, L. I. C., N. Y.

Dear Friend:

Thanks for your reply to our recent advertisement. We enclose literature on the Printact Standard series G and Latching series LS/LD relays.

If you will fill out and return this card today, we will gladly send you cost and technical information on the Printact relay recommended for your application as well as data on required PC boards.

Thank you.


J. A. Richards,
Division Manager

PR5

Please send data and quote on **Printact®**

PRINTED CONTACT—PERMANENT MAGNET RELAY

☐ Latching LS Series ☐ Latching LD Series ☐ Standard G Series

Coil Voltage _____ DC Contacts Req. _____ Life Req. _____

Contact Load: Volts _____ DC or AC _____ Amps Inductive or Resistive

Please quote in lots of _____

Name _____ Title _____

Firm _____ Dept. _____

Address _____ Telephone _____

City _____ Zone _____ State _____

Postage
Will Be Paid
by
Addressee

No
Postage Stamp
Necessary
If Mailed in the
United States

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 488 LONG ISLAND CITY 1, NEW YORK

Executone inc.

Printact Relay Division

47-37 Austell Place,

Long Island City 1, N. Y.

